To: Stan Kaczmarek[StanK@demaximis.com]; BudneySL@cdmsmith.com[BudneySL@cdmsmith.com]; Hoppe, Michael[Hoppe.Michael@epa.gov]
Cc: Gary.Foster@CH2M.com[Gary.Foster@CH2M.com]; George.Hicks@CH2M.com[George.Hicks@CH2M.com]; James.Brinkman@CH2M.com[James.Brinkman@CH2M.com]; Jennifer.Wilkie@CH2M.com[Jennifer.Wilkie@CH2M.com]; Mike.Jury@CH2M.com[Mike.Jury@CH2M.com]; John Rolfe[jrolfe@demaximis.com]; Willard Potter[otto@demaximis.com]; Robert Law[rlaw@demaximis.com]; Todd King[TKing@gldd.com]
From: Vaughn, Stephanie
Sent: Wed 12/4/2013 9:31:24 PM
Subject: RE: AquaGate Placement QAQC

Hi Stan,

We have reviewed the Technical Memo and have a few questions/concerns.

•□□□□□□□ In Table 1 of the TM, CH2M Hill provided the daily usage rates for AquaGate and the daily coverage rates. Based on these daily rates, CH2M Hill calculated the thickness of the AquaGate placed. However, when comparing the daily AquaGate usage volumes in Table 1 to the daily AquaGate usage rates provided in the Daily Production Volumes Nov 12-25.xls Excel table received from Stan Kaczmarek on 11/26, we notice discrepancies between the excel table and the Cap Thickness QAQC TM, in term of the daily volumes of Aquagate usage. The excel table shows a lower volume of Aquagate placement on 11/13, 11/14, 11/15, 11/16 and 11/18. When the Aquagate volumes from the Excel table and the estimated areas of placement from the TM were used to calculate the Aquagate thickness, the minimum thickness requirements of 2.5 inches were met except for 11/13, which has only 2.44 inches on that day. Additionally, the daily thickness of AquaGate for the days reported is less than 3 inches in 5 out of the 9 days. And finally, the overall average thickness is only 2.86 inches, which is less than the minimum average requirement of 3 inches. Please determine which AquaGate daily usage is correct and explain the discrepancies.

•□□□□□□□ Please explain how the area estimated and AquaGate usage was determined when the area was started on one day and finished on the next day?

There are still a number of outstanding issues related to the placement of the active cap layer, including this one and the organic carbon analysis results we are awaiting. As I stated during our call last week, placement of the geotextile and armoring layer cannot occur until these open issues are resolved.

Thanks,
Stephanie

From: Stan Kaczmarek [mailto:StanK@demaximis.com]
Sent: Tuesday, December 03, 2013 4:43 PM

To: BudneySL@cdmsmith.com; Hoppe, Michael; Vaughn, Stephanie
Cc: Gary.Foster@CH2M.com; George.Hicks@CH2M.com; James.Brinkman@CH2M.com; Jennifer.Wilkie@CH2M.com; Mike.Jury@CH2M.com; John Rolfe; Willard Potter; Robert Law; Todd King
Subject: AquaGate Placement QAQC

Mike and Stephanie,

As described in the attached Technical Memorandum, CPG has determined that the most accurate method to determine the adequacy of AquaGate placement is to calculate the equivalent depth of AquaGate application in an area. This utilizes measured as opposed to estimated values, specifically data on the daily volume of AquaGate applied (each bag contains 1 cubic meter) and data on how much active layer area was completed during each day. With this method, it has been determined that the minimum thickness of AquaGate (2.5 inches) as well as the minimum average thickness (3.0 inches) has been met in all areas downriver of the No Dredge Zone.

A similar daily evaluation will be performed for the area north of the No Dredge Zone and submitted when the active layer placement is completed. It should be noted that the application rate in this area through Saturday November 30 averages 3.3 inches of AquaGate.

Stan

Stan Kaczmarek, PE

de maximis, inc.

186 Center Street, Suite 290

Clinton, NJ 08809

(O) (908) 735-9315

(C) (973) 978-9621